CLAIMS:

1. A laser-diode drive circuit comprising:

a filter circuit provided for the purpose of eliminating noises entering an input signal inputted to the laser-diode drive circuit and an output current signal outputted therefrom for driving a laser diode;

a control-signal generating circuit for generating a control signal over a predetermined time period immediately after the rise of an input signal waveform or an output current signal waveform; and

a time-constant reduction circuit active to reduce a time constant of said filter circuit during the receipt of said control signal.

2. A laser-diode drive circuit according to Claim 1, wherein said time-constant reduction circuit functions as a current bypass circuit for the filter circuit serially inserted in a current path.

3. A laser-diode drive circuit according to Claim 1, wherein said time-constant reduction circuit functions as a circuit for shutting off the filter circuit from a current path, the filter circuit inserted in parallel in the current path.

4. A laser-diode drive circuit according to Claim 1, wherein said control-signal generating circuit comprises a Schmidt trigger circuit.

5. A laser-diode drive circuit according to Claim 1, wherein said control-signal generating circuit uses software for generating the control signal.

6. A laser-diode drive circuit comprising;

a filter circuit provided for the purpose of eliminating noises entering an input signal inputted to the laser-diode drive circuit and an output current signal outputted therefrom for driving a laser diode;

a control-signal generating circuit for generating a control signal over a predetermined time period immediately after the rise of an input signal waveform or an output current signal waveform; and

a current compensation circuit active to compensate for a current through a current path during the receipt of said control signal.

7. A laser-diode drive circuit according to Claim 6, wherein said current compensation circuit includes a current source for supplying a required amount of current to the current path.

8. A laser-diode drive circuit according to Claim 6, wherein said control-signal generating circuit comprises a Schmidt trigger circuit.

9. A laser-diode drive circuit according to Claim 6, wherein said control-signal generating circuit uses software for generating the control signal.